ABSTRACT

An ion adsorption module comprises a container with at least an opening into which feed water flows, and an organic porous ion exchange material having a three-dimensional reticular structure filled into the container, which has a continuous pore structure comprising macropores and mesopores, the macropores being interconnected with each other forming mesopores with an average diameter of 1-1,000 μm in the interconnected parts, has a total pore volume of 1-50 ml/g, contains uniformly distributed ion exchange groups, and has an ion exchange capacity of 0.5 mg equivalent/g or more of the porous material on a dry basis. The ion adsorption module can be extremely easily filled with the ion exchange material, and the packed layer does not move even if the layer is placed in an upward flow. The ion adsorption module and the water processing method using the ion exchange material are extremely useful.

15